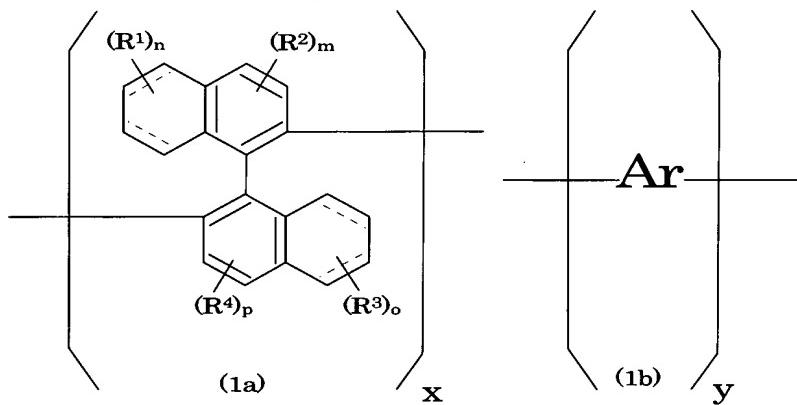


## CLAIMS

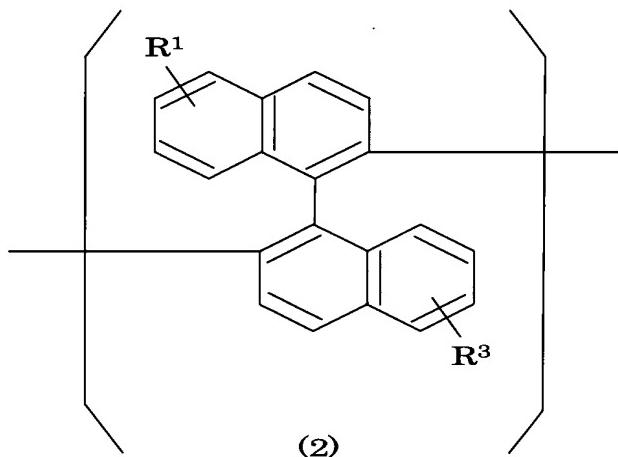
1. An electroluminescence polymer comprising a binaphthyl derivative structural unit represented by the  
 5 following formula (1a) and an aryl structural unit represented by the following formula (1b):



wherein Ar is an aryl structural unit that can form an electroluminescent  $\pi$ -conjugated polymer; R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are each independently hydrogen, alkyl, alkenyl, alkynyl, aralkyl, aryl, heteroaryl, alkoxy, aryloxy or aliphatic heterocyclic group; the double bonds of the binaphthyl structural unit indicated by dashed lines and solid lines are each an unsaturated double bond or a saturated single bond; m and p are each independently 0, 1 or 2; n and o are 10 each independently 0, 1, 2, 3, 4, 5, 6, 7 or 8; when m, n, o or p is an integer of 2 or greater, the two or more R<sup>1</sup>s, R<sup>2</sup>s, R<sup>3</sup>s, or R<sup>4</sup>s may or may not be identical to one another;

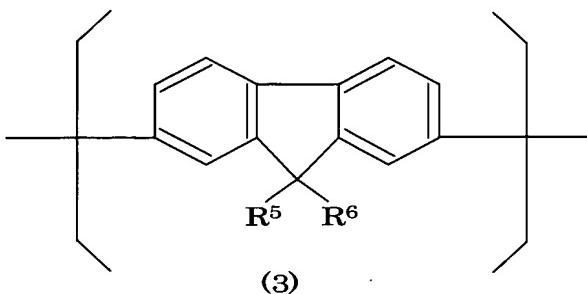
x is the molar fraction of the binaphthyl derivative structural units; and y is the molar fraction of the aryl structural units.

5           2.     The electroluminescence polymer according to  
claim 1, wherein the binaphthyl derivative structural unit  
of the formula (1a) is a structural unit represented by the  
following formula (2):



wherein R<sup>1</sup> and R<sup>3</sup> are each independently hydrogen, alkyl,  
10 alkenyl, alkynyl, aralkyl, aryl, heteroaryl, alkoxyyl,  
aryloxy, or aliphatic heterocyclic group.

15       3.     The electroluminescence polymer according to  
claim 1, wherein the aryl structural unit of the formula  
(1b) is a fluorene derivative structural unit represented  
by the following formula (3):



wherein R<sup>5</sup> and R<sup>6</sup> are each independently hydrogen, alkyl, alkenyl, alkynyl, aralkyl, aryl, heteroaryl, alkoxy, aryloxy, or aliphatic heterocyclic group.

5           4.       The electroluminescence polymer according to  
any one of claims 1 to 3, wherein x is in a range of 0.1 to  
90 mol%.

5           5.       The electroluminescence polymer according to  
10 claim 3, comprising, in addition to the binaphthyl  
derivative structural unit and the fluorine derivative  
structural unit, at least one of carbazole derivative  
structural unit, anthracene derivative structural unit,  
naphthyl derivative structural unit, biphenyl derivative  
15 structural unit, benzene derivative structural unit, and  
aromatic heterocyclic derivative structural unit.

6.       An organic electroluminescence device,  
comprising a luminescent layer sandwiched between a pair of

electrodes, the luminescent layer formed of the electroluminescence polymer according to any one of claims 1 to 5.

5           7.     A display comprising the organic electroluminescence device according to claim 6.